RECOVERING TRACK FORMAT INFORMATION MISMATCH ERRORS USING DATA RECONSTRUCTION

ABSTRACT

[32]   A method, system, and article of manufacture for recovering from a track format error detected by a host computer associated with a storage controller associated with a storage disk array. The recovery method begins with saving a copy of the track format information associated with the data track that triggered the track format error in a predetermined location. Next, the track format information associated with the data track that caused the error is invalidated and the subject data is restaged. Subsequently, the restaged data is compared to the saved copy of the track format information to determine if the track format error exists with respect to the restaged data. If the track format error is detected with respect to the restaged data, the method further consists of reconstructing the data, preferably by performing a reconstruct read recovery. The reconstructed data is then compared to the saved copy of the track format information to determine if the track format error exists with respect to the reconstructed data. The method is completed by rebuilding the track format information to match the reconstructed data, writing the reconstructed data to the storage disk array, and passing the reconstructed data to the host.

17